Remarks

Claims 1, 6, 7, 10-13, 15 – 17, 19, 20, and 58 are allowed. Claims 2-5, 8, 9, 14, 18, 30, 40 – 44, 51 – 57, and 61-64 are cancelled without prejudice or disclaimer. Claims 21 – 29, 31-39, 45 –50, 59, and 60 remain for consideration and reconsideration of those pending claims is requested.

Claim 1 was previously allowed and the minor editorial amendments to claim 1 do not broaden the claim and therefore it is presumed to be allowed.

Claim 21 recites a method of personalizing marketing resources, including providing a data mining engine capable of being trained with training data and capable thereafter of performing inferences relative to the training data. A user database is provided for correlating observed characteristics of each one of a set of users with a set of adaptable marketing features, the observed characteristics comprising: (a) at least one of the user's attributes, and (b) at least one of the user's preferences. The data mining engine is trained with a set of training data comprising the user database by clustering the users in the database into user segments with similar observed characteristics.

Claim 21 further features *inputting to the data mining engine a set of user attributes of one of: (a) a particular user, or (b) a particular group of users*; and, in response thereto, obtaining from the data mining engine a subset of the adaptable marketing features having the highest correlation to the set of user attributes by determining which of the user segments identified during the training of the data mining engine has characteristics that are statistically correlated with the set of user attributes; and wherein the subset of adaptable marketing features is determined based upon the preferences of users in the user segments statistically correlated to the set of user attributes. The italicized portion of the recitation of claim 21 stresses an important feature of the claim for the purposes of the patentability evaluation.

The Examiner has rejected claim 21 as being anticipated by the subject matter of US patent number 6,260,036 to Almasi et al. The '036 patent, however, fails to show or suggest the step of inputting to the data mining engine a set of user attributes and using those attributes to determine a user segment, previously obtained by clustering of data, that correlates to the input set of attributes. The Examiner cites to col 13, line 63 – col 14, line 52 for this feature of applicants' invention. A careful review of this section fails to teach

or suggest this step.

The portions of the '036 patent relied upon by the Examiner fairly teach a visual evaluation of the results of so a call SOM analysis. (SOM stands for self-organizing map, see col 1, line 20 of the '036 patent) As noted in the '036 reference "Clustering or segmentation uses unsupervised training to identify groups of records which are mathematically similar in the input data space." See col 13, line 13. Indeed, the entire section of the '036 patent relied upon by the Examiner to teach applicants recited step of inputting a set of user attributes relates to a visual analysis of the segmentation results of the SOM analysis. This is summarized by the conclusion at col 14, line 46 that "Clearly, combining demographic data such as that used in this segmentation with spending data from a commercial data warehouse would give valuable insight into a company's database. Segments, or groups of neighboring segments, could be selected and marketing campaigns tailored for these segments according to their demographics and spending interests."

The portion of the '036 patent relied upon does not show (or suggest) a step of inputting a set of attributes from a user or a set of users and determining which of the user segments (or clusters) identified during the training of the data mining engine has characteristics that are statistically correlated with the set of user attributes that are input to the data mining engine. For this reason, the invention featured in claim 21 is neither shown nor suggested by the '036 patent either alone or in combination and therefore claim 21 is allowable.

If the Examiner places an interpretation on this portion of the '036 patent different than the above, applicants representative requests a telephone interview to discuss this portion of the reference with the Examiner. Applicants believe another evaluation of this portion of the '036 patent will cause the Examiner to concur with Applicants and conclude that the claim is allowable without need of further amendment. Claims 22 – 29 depend from allowable claim 21 and are also allowable.

Turning to claim 31, this claim features a method of controlling the marketing resources of an Internet site having a real-time user interface during a visit to the Internet site by a particular user. The claim features providing a data mining engine capable of being trained with training data and capable thereafter of performing inferences relative to the training data.

A user database provides an ability to correlate observed characteristics of each one of a set of users with a set of adaptable marketing features. The observed characteristics comprise at least one of: (a) user attributes, and (b) user preferences. The data mining engine is trained with a set of training data comprising the user database by clustering the users in the database into segments of users with similar characteristics.

A set of user attributes of a particular user is input to the data mining engine by obtaining observed characteristics of the particular user through a real-time user interface to the Internet site. In response to characteristics observed through the interface, the process obtains from the data mining engine a subset of the adaptable marketing features having the highest correlation to the set of user attributes by determining which of the segments derived from the training data has characteristics that are statistically correlated with the set of user attributes. The subset of adaptable marketing features is determined based upon the preferences of the segments of users that was statistically correlated to the set of user attributes input to the data mining engine.

The Examiner's rejection of claim 31 relies upon col 13, line 63 – col 14, line 52 of Almasi et al (US 6,260,036). It is the Examiner's assertion that this portion of the '036 patent shows the process of inputting a set of user attributes to the data mining engine. This is precisely the same section of the '036 patent discussed above with regard to claim 21. The visual presentation of clustering information does not show or suggest the recitation in claim 31 of "*inputting to the data mining engine a set of user attributes of the particular user by obtaining observed characteristics of the particular user through a real-time user interface of the Internet site*".

The Examiner has rejected claim 31 under 35 USC 103 since the '036 patent to Almasi et al does not show an Internet access. The secondary reference to Herz et al (US 6,571,279) has the one line statement that "Two obvious ways of communicating promotions are by direct mail and through the retailer's Web site." This reference to a 'Web site' does not remedy the fundamental deficiency of the principal reference. The '036 is lacking a feature of the claimed invention and for this reason, claim 31 is patentable

Claims 32-39 and 45-50 depend from allowable claim 31 and are allowable at least for the reasons presented with regard to claim 31.

At page 2 of the Office Action dated July 15, 2003 the Examiner rejected claims 47 – 50 as not meeting the enablement requirements of 35 USC 112, first paragraph. The support for claims 47 – 50 is found at page 28 of the application as filed. The exemplary embodiment of the invention that is described at page 28 includes a feedback component 260 depicted in Figure 2. The feedback component allows the user segment or cluster to which a particular user is assigned to be updated as more information concerning a particular user is obtained by means of a real time interface. This feedback information allows the profiler 220 to assess "the latest usage data" to "correlate the choices of the new user with the known attributes of users in the database who have made the same or similar menu choices or who have behaved similarly." See page 28 lines 9 – 11 of the application as filed. This updated correlation occurs after an initial assignment of the user to a segment or cluster. (See page 27)

Turning now to the text of claim 47, this claim features steps of comparing a distribution of the observed responses across the marketing features of the presentation to corresponding distributions in different ones of the segments so as to detect any errors in the assignment of the particular user to a segment; and correcting the assignment of the user to a different segment in response to the detection of an error." This is another way of stating that a first assignment is made so that an initial marketing campaign can be presented to the user and then based on continued interaction with the user in a real time setting the segment to which the user is assigned can be corrected or *improved.* (See page 28 line 5) The text of the application also notes that "The improved assessments thus generated enable a data cleaning operation in which prior *erroneous* assessments of the user previously stored in the data warehouse 210 are replaced..." (See page 28, line 14) Support for claim 47 is clearly contained within the text of the application as filed. The examiner believes there is no support for the ability to detect an error. Applicants respond that the ability to detect the error is based on the correlation between observed responses to the initial marketing campaign with updated or more complete data from the real time user. Such a re-evaluation can result in assignment to a new group or cluster for purposes of classifying the new user. Claims 48 – 50 deal with features of the invention based on a reclassification of the user in response to receipt of additional real time data supplied by the user. These features are clearly supported by the application. Favorable

reconsideration of the 35 USC 112 rejection of claims 47 – 50 is solicited.

Claim 59 is a machine readable medium claim patterned after allowable claim 21 and is also allowable. Claim 60 is a machine readable medium claim patterned after allowable claim 31 and is also allowable.

All claims presently pending in this application are in condition for allowance and a prompt notification of allowance is requested.

Respectfully Submitted,

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